

REMARKS

Claims 1-3, 5-30 and 32-36 are pending in this application. Claims 1-3, 5, 10-13, 16-30 and 32-35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Peterson in view of Roberts. Claims 6-9 and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over either Kuribayashi or Peterson in view of Roberts and Kato. No amendments have been made to the claims. Reconsideration of all rejections in view of the following remarks is respectfully requested.

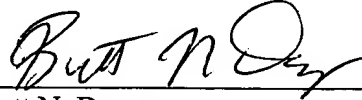
Applicant respectfully traverses the claim rejections because the cited art does disclose, teach or suggest the claimed features of the present invention. Furthermore, the cited art lacks any teaching or suggestion to combine the references in the manner suggested in the Office Action. The present claimed invention relates to a laser diode assembly having certain characteristics for thermal control. None of the prior art relates to thermal control. Peterson discloses a laser diode similar to that disclosed as prior art in Fig. 1 of the present application. It has a single electrical bonding pad for electrical connection. While the metallic wires and pads will inherently conduct heat, nothing in Peterson teaches or suggest such a use. Peterson discloses use of a heat sink below the laser diode for removing heat. Thus, it teaches a different mechanism for heat removal. Also, Peterson does not teach or suggest a thermally conductive layer as recited in claim 1, which attaches to the bonding members. The thermally conductive layer in Peterson connects the bottom of the laser diode to the heat sink. Finally, as discussed in the specification of the present application, prior art laser diodes, such as Peterson, used a single conductive pad on the surface of the diode. The present invention expands a small protective layer to create a second conductive pad for removal of heat. The second conductive pad is

positioned on an opposite side of the laser ridge to the first conductive pad. Peterson does not teach or suggest such a structure.

The Office Action acknowledges that Peterson does not teach or suggest two conductive pads. It then seeks to rely upon Roberts for that feature. However, Roberts, like Peterson, does not teach or suggest using conductive pads, a conductive layer, and bonding members for thermal conduction. Roberts only relates to electrical connections to a radiation emitter. Roberts does suggest that multiple wires and bonding pads can be used for redundancy purposes. However, the structures in the present invention are not used for redundancy purposes. All of the bonding members are used to transfer heat to the thermally conductive layer. The use of additional bonding members allows more heat to be dissipated. The use of two conductive pads allows more bonding members to be used. In particular, bonding members may be connected on either side of the laser ridge. Since Roberts does not teach or suggest thermal control, it cannot be combined with Peterson to achieve the present invention.

Based on the foregoing, this application is believed to be in allowable condition, and a notice to that effect is respectfully requested. If the Examiner has any questions, he is invited to contact the Applicant's undersigned attorney at the number provided below.

Respectfully submitted,



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